



Zero waste biorefineries: technical advances and sustainability assessment

The 1st Summer School on waste biorefineries in the context of bioeconomy, with a focus on valorization of recalcitrant side streams. A panel of specialists in the biorefinery field will provide an up-to-date state-of-the-art overview based on the latest advances in terms of scientific knowledge, techno-economical developments and life cycle assessment methodologies.

10/2016 - 09/2020

www.zelcor.eu

This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No 720303.







Registration & course fee

To register please visit **www.zelcor.eu/summerschool-registration**Applicants will receive further course details and instructions for payment after registration.

2 – 6 September 2018 Wageningen International Congress Centre (WICC) Lawickse Allee 9, 6701 AN Wageningen Wageningen, The Netherlands

Course fee includes materials, coffee/tea during breaks, lunches, an excursion and 2 course dinners but does not cover accommodation. The course fee depends on the participant's affiliation:

Course fee

PhD candidates affiliated with VLAG	€250
other PhD candidates + ZELCOR members	€ 450
University staff / Non-Profit	€750
Industry / For-Profit	€ 1500 (*)



Daytickets for industry participants are available upon request, email to: cornelia.vanbree-evers@wur.nl

Contact

Summer School Coordination



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Zero waste biorefineries – **Technical advances** and sustainability assessment

2-6 September 2018 · Wageningen · The Netherlands

Day 0		
Sunday September	2,	2018

18:30-19:00 19:00-20:00 Registration

Welcome drinks & preparing poster exhibition

Day 1				
Monday	September	3.	201	8

Monday Septe	ember 3, 2018		
09:00-09:30		Registration	
09:30-10:00	Plenary session	Welcoming and introductive presentation	Stéphanie Baumberger & Richard Gosselink
10:00-11:00	Plenary session	Lignocellulosic feedstocks for biorefineries	Stephan Piotrowski
11:00-11:30		Coffee/tea break & Poster Presentation	
11:30-12:30	Plenary session	Feed markets for waste valorization	Alex Obach
12:30-12:45		Group photo!	
12:45-13:30		Lunch	
13:30-14:30	Plenary session	Lignocellulosic biorefineries with integrated side stream valorization: reality or future?	Ed de Jong
14:30-15:30	Plenary session	Functionalities and markets for lignins	Jairo Lora
15:30-16:00		Coffee/tea break & Poster Presentation	
16:00-17:00	Plenary session	Cosmetics needs in active biomolecules	Fabio Apone
17:00-18:00	Plenary session	Use of biomolecules for extending food	Jérome Vachon
		shelf-life through Active Packaging	
18:45-20:30		Dinner @ 'Beau' Hotel Restaurant	

Day 2

ember 4, 2018		
Plenary session	Potential of bacteria and synthetic biology for lignin conversion	Tim Bugg
Plenary session	Microbial consortia and waste valorization	Guillerma H
	Coffee/tea break & Poster Presentation	
Plenary session	Insect potential in biorefineries	Nathalie Be
Plenary session	Thermochemical processes for the	Daan van E
	Plenary session Plenary session Plenary session	Plenary session Potential of bacteria and synthetic biology for lignin conversion Plenary session Microbial consortia and waste valorization Coffee/tea break & Poster Presentation Plenary session Insect potential in biorefineries

13:15-14:00

Hernandez

Berezina Daan van Es

Lunch

14:00-15:00	Plenary session	Technical and "green" potential of ionic liquids	Guy Marlair & Betty Cottyn
15:00-16:00	Plenary session	Tool box for tuning lignin structure	Stéphanie Baumberger
16:00-16:30		Coffee/tea break & Poster Presentation	
16:30-17:30	Plenary session	Analytical tools review for lignin characterization	Richard Gosselink
17:30-18:30	Plenary session	Humins: production and progress in structural investigation	Annelie Jongerius

Day 3			
Wednesday Se	eptember 5, 2018		
08:45-09:45	Plenary session	Value-chain environmental assessment	Harriëtte Bos
09:45-10:45	Plenary session	Taking into account techno-economic criteria in the design of biomass conversion processes	Elke Breitmayer
10:45-11:15		Coffee/tea break	
11:15-12:15	Plenary session	LCA and environmental aspects	Xun Liao
12:15-13:15	Plenary session	"Closing the loop" in the context of an	Iulian Zoltan Boboescu
		integrated biorefinery:	
		A sweet sorghum-based discussion.	
13:15-14:00		Lunch	
14:30-15:00		Travel to Heelsum	
15:00-17:00		Site visit @ Schut Paper – Heelsum	
17:00-17:30		Travel to Wageningen Campus –	
		Wageningen University and Research	
17:30-19:00		Course Dinner @ Impulse Wageningen Campus	
19:00-20:00	Plenary session	Bio-based Economy	Rafael Luque
20:00-20:30		Travel to WICC	
18:45-20:30		Dinner @ 'Beau' Hotel Restaurant	

Day 4

Thursday Sep	tember 6, 2018		
08:45-09:15	Case studies	Introduction	Richard Gosselink
09:15-10:30	Case study 1	Pulp & paper mill including full valorization of side streams	
09:15-10:30	Case study 2	Lignocellulosic biorefinery with focus on production of biochemicals	
		including full valorization of side streams	
10:30-11:00		Coffee/tea break	
11:00-12:00		Continue on the case studies	
12:00-13:00		Short presentation on the case study per group	
13:00-13:45		Lunch	
13:45-14:15		Closing Session	Stéphanie Baumberger &

production of platform biomolecules